

BEML LIMITED, BANGALORE

TENDER REF: 6300038792

Date: 15.04.2024

ISSUED TO:	Period of contract:	08 Months
	Defect Liability Period	05 Years
	EMD : (Rs)	2,50,000/-

Sub: Arresting roof leakages by providing acrylic based waterproofing treatment & associated Civil works to RCC Roof at Type-A quarters - (7 Blocks) 1st, block, 2nd block, 3rd block, 4th block, 6th block, 8th block, 12th block, & Type B Quarters- (1 Block), 3rd Block at BEML TOWNSHIP, BANGALORE COMPLEX, BEML LTD, BANGALORE..

SCHEDULE 'A' - BILL OF QUANTITIES

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
1	Complete chipping and removal of existing old cement plaster of any thickness provided over RCC roof slab/ parapet /chajja top including removal of old water proofing APP Membrane wherever present carefully without damaging the existing structure and disposal of debris out side the site premises exceeding 1.5KM but not exceeding 5.0KM which is not objected by any civic authorities including tools & tackles etc., complete all as specified and as directed by Engineer in charge. Note: The rate is deemed to include for providing & removal of scaffolding/staging wherever necessary.	Sq.M	4400.00		
2	Complete removal the existing brick bat coba/ lime concrete/loose surkhi provided over RCC Roof Slab carefully without damaging the existing structure and disposal of debris out side the site premises exceeding 1.5KM but not exceeding 5.0KM which is not objected by any civic authorities including tools & tackles etc., complete all as specified and as directed by Engineer in charge. Note:- The rate is deemed to include for providing & removal of scaffolding/staging wherever necessary.	Cum	155.00		
3	Cleaning the Roof slab using wire brushes, water washing and removal of rank vegetation, all foreign materials and applying a coat of cement slurry with cement at the rate of 3kg/Sqm over the thoroughly cleaned roof slab as a preparatory course including tools, tackles etc., complete all as specified and directed by the Engineer in charge.	Sq.M	2200.00		
4	Providing and laying in position Plain Cement Concrete of mix proportion 1:2:4 average 75mm thick using 20mm graded granite aggregates as a screed concrete over roof slab/chajja/other similar works, laid to a proper slope & gradient, well compacted,mechanical/manual mixing including curing etc., complete all as specified and directed by the Engineer in charge. Note: 1) The rate is deemed to include for providing & removal of cenetering/form work etc., 2) The rate is deemed to include for providing & removal of scaffolding/staging wherever necessary.	Cum	180.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
5	Providing plastering 20mm thick in cement mortar of mix proportion 1:4 over roof slab/concrete surface and admixed with M/s. Fosroc make CONPLAST X42 IC/WL (200ML/Bag of cement) and the surface finished smooth and even etc., complete all as specified and directed by the Engineer-in-charge. Note: M/s. Fosroc Conplast X42 IC/WL water proofing chemical shall be measured & paid separately under relevant item.	Sq.M	4700.00		
6	Supplying and mixing M/s. Fosroc make CONPLAST X42 IC/WL while rendering for the roof slab and parapet wall surfaces as per Manufacturers instructions (200ml/bag of cement) etc., complete all as specified and directed by the Engineer in charge.	Ltrs.	185.00		
7	<p>Providing & applying Bitumat Synroof Hi – Build elastomeric premium quality liquid waterproofing system as detailed below:</p> <p>a) Supplying and applying premium quality acrylic waterproofing primer @ 250 grams per square meter after diluting as per the manufacturer's recommendations by allowing 3 to 4 hours for the primer to dry completely.</p> <p>b) Applying 2nd coat of premium quality acrylic waterproofing coating @ 350 grams per square meter using roller / brush after diluting as per the manufacturer's recommendations and simultaneously over this install 60 GSM thermally stabilized polyester reinforcement with 100mm side Laps and 150mm end laps and applying additional coat of premium quality acrylic waterproofing coating @ 350 grams per square meter using roller / brush.</p> <p>To Ensure there are no wrinkles or folds on the reinforcement membrane and allow it to dry for 24 hours.</p> <p>Applying final coat of premium quality acrylic waterproofing system @ 350 grams per square meter using roller / brush after diluting as per the manufacturer's recommendations after 24 hours of drying.</p>	Sq.M	4700.00		
	<p>All dilutions shall be strictly as per the manufacturer's instructions as shown in the product catalogue.</p> <p>The same system shall be carried out over the vertical areas like parapets if any.</p> <p>Note 1) All materials shall be produced with samples and to obtain prior approval of EIC before commencing the work</p> <p>2) The water proofing materials shall be tested as per the standards prescribed from the reputed laboratory for the following parameters and cost involved for conducting such test shall be borne by the Firm. The quoted rate shall be deemed to include for the cost of testing:</p> <p>a) Solid content (%)</p> <p>b) Viscosity (CPS)</p> <p>c) Density (Kg/l)</p> <p>d) Curing time (Touch dry time) at 27 degree Celsius.</p> <p>e) Tensile strength and Elongation %</p> <p>f) Hardness- Shore A scale.</p> <p>g) Permeability(Depth of penetration) mm.</p> <p>h) Coverage (Kg/m2).</p> <p>. Note: The rate quoted is deemed to include for providing & erecting scaffolding, staging/ladder & providing safety nets wherever necessary and protective measures etc.,complete all as specified & directed by Engineer in Charge.</p>				

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
8	Demolition/Dismantling the existing cement concrete in any description and in any position carefully and disposal of debris out side the site premises exceeding 1.5KM but not exceeding 5.0KM which is not objected by any civic authorities including tools & tackles etc., complete all as specified and as directed by Engineer in charge. Note: The rate is deemed to include for providing & removal of scaffolding/staging wherever necessary.	Cum	75.00		
9	Removing the existing old PVC/AC/Cast iron Pipes of any diameter & handing over the serviceable materials to M/s BEML Ltd in good condition & disposal of unserviceable materials outside the site premises and Supplying & fixing new 110 mm diameter PVC pipes (6kg/cm ²) for rain water down take of first quality, approved brand, manufactured by M/s.Supreme/Astral conforming to relevant IS including all standard fittings like elbows, bends, tees, PVC Y & fixtures such as pipe clips, clamps wooden plug, screws, washers etc secured firmly to the wall/floor surfaces etc.,complete all as specified and as directed by Engineer in charge.	Rmt	650.00		
10	Removing the existing old broken GI/CPVC water Pipes & Supplying and Laying 20mm diameter, heavy grade CPVC water tubing manufactured by M/s.Supreme/Astral/Ashirwad/ laid in required length, gradient in walls, flooring & trenches including all standard CPVC fittings such as elbows, collars, Tees, MTA, FTA, PVC Clamps including cutting & making good the floor/walls with cement mortar wherever necessary etc. complete all as specified and directed by Engineer-in-charge. Note: The rate quoted for the item deemed to include for a) Providing & removal of scaffolding, staging wherever necessary etc.	Rmt	800.00		
11	Supplying, Fabricating, hoisting and erecting in position MS Structural steel works for ladder, tank platform using MS Structural steel sections viz., channels, plates, angles, cleats, flats, fixing to correct line & level including cutting, welding, bending to required shape, cleaning the rust and scales, shims & packing pieces required for erection at all elevation heights & levels etc.,complete all as specified and as directed by Engineer in charge. Note: a) The rate quoted is deemed to include for labour, welding machine, welding rods, gas etc. b) The rate quoted is deemed to include for scaffolding, staging/ladder & providing safety nets wherever necessary and protective measures etc.	Kgs	8400.00		
12	Preparing the steel surfaces by scrapping & applying two coats of synthetic enamel paint of first quality, approved brand and colour, Manufactured by M/s Asian paints/Berger over a coat of yellow/red oxide zinc chromate primer etc., Complete all as specified and directed by Engineer in charge. Note: The rate quoted is deemed to include for providing and removal of scaffolding, staging/ladder wherever necessaryand protective measures etc.	Sqm	350.00		

Sl. No	Description	Unit	Qty	Rate/unit in fig. & in words Rs.	Amount (Rs)
13	Supplying, hoisting & fixing in positing triple layered rotational moulded polyethylene water storage tank (cylindrical vertical with closed top) of capacity 1000 litres of M/s Sintex/Vectus/Ashirvad/Supreme white colour of first quality conforming to relevant IS 12701 including connecting of pipes, and making water connections with all necessary hardware items tools & tackles etc., complete all as specified and directed by Engineer in charge.	Each	93.00		
14	Providing and constructing 230mm thick/required thickness burnt brick masonry in cement mortar of mix proportion 1:6 using first class table moulded bricks for superstructure at required heights including tools & tackles, curing etc., complete all as specified & directed by Engineer in charge. Note: The rate quoted is deemed to include for providing & removal of scaffolding, staging/ladder wherever necessary and protective measures etc.	Cum	18.00		
	Total value of work excluding GST (Rs).				
	GST (Rs).				
	Total value of work inclusive of GST (Rs)				
	<p>Note:-1. The rate quoted for the above items is deemed to include for providing and removal of scaffolding/staging wherever necessary.</p> <p>2. The Defect Liability Period will be 5 years from the date of satisfactory completion of the work.</p> <p>3) The contractors/ prospective bidders shall visit the site and acquaint themselves with the site conditions before submission of bid/ quote.</p>				

(Total Amount in words Rupees.....
.....)

Signature of the Contractor with seal